

ACCESSION NR: AP4026149

difference between the reference-signal frequency and the noise frequency which lies out of the passband of the LF filter connected after the phase detector. Under the above conditions, an allowance for the nonlinearity of a phase AFC system results in a correction to the mean phase difference between the reference and the received signals, making this difference appreciably greater. Orig. art. has: 4 figures and 25 formulas.

ASSOCIATION: Nauchno-tehnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 13Sep62

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: EC

NO REF SOV: 005

OTHER: 001

Card 2/2

ACCESSION NR: AP4029220

S/0106/64/000/004/0011/0018

AUTHOR: Shakhgil'dyan, V. V.; Lyakhovkin, A. A.

TITLE: Filtration of a monochromatic signal by a phase AFC

SOURCE: Elektrosvyaz', no. 4, 1964, 11-18

TOPIC TAGS: AFC, phase AFC, phase AFC filtration, filter limiter filter system

ABSTRACT: A phase AFC (PAFC) system is theoretically considered as a filter which controls the signal-to-noise ratio, and its performance is compared with that of a filter-limiter-filter (FLF) system. The dispersion of the phase of the oscillator being synchronized is found to be minimum with a proportional-integrating filter in the PAFC-feedback circuit; the real energy spectrum of the reference signal is allowed for. These assumptions are made: (1) The carrier-frequency component is regarded as a "signal" and all spurious-phase-modulation

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ACCESSION NR: AP4029220

components as "noise"; (2) the first FLF filter is identical to the filter located before the PAFC system; (3) the narrow-band filter after the limiter has a near-square-shaped frequency response; (4) the PAFC locking-in band is equal to the passband of the narrow-band filter; (5) the signal-to-noise ratio at the output of the narrow-band system is $\rho_1 > 5$. With the above assumptions, the PAFC system exhibits a better filtration than the FLF system at a cost of a considerably longer time constant of the former. Orig. art. has: 5 figures and 25 formulas.

ASSOCIATION: none

SUBMITTED: 30May63

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: EC

NO REF SOV: 007

OTHER: 001

Card 2/2

LYAKHOVIE, A.A.; SHARIGIL'DYAN, V.V.

Lock band in an inertial automatic phase frequency control system.
Radiotekhnika i elektronika 19 no.9:32-40 S '64. (TIRA 17:10)

1. Deystvit'nyy chleny Nauchno-tehnicheskogo obshchestva radic-
tekhniki i elektrsovyyazi im. A.S. Popova.

SHAKHGIL'DYAN, V.V.; LYAKHOVSKIN, A.A.

Selection of a low-frequency filter for an automatic phase frequency control circuit minimizing the frequency dispersion of a synchronizing generator. Radiotekhnika. 20 no.6:28-34. Je '65. (MIRA 18:7)

1. Deystvitel'nyye chleny Nauchno-tekhnicheskogo obshchestva radio-tehniki i elektrsovyyazi imeni Popova.

L 02413-67 EWT(1) GD

ACC NR: AT6022338

SOURCE CODE: UR/0000/66/000/000/0007/0013

AUTHOR: Snakhgil'dyan, V. V.

33BT1

ORG: None

TITLE: Investigation of the statistical properties of an inertial system for phase synchronization of a self-excited oscillator 16

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966.
Sektsiya teorii i tekhniki peredachi diskretnykh signalov. Doklady. Moscow, 1966.

7-13

TOPIC TAGS: AFC, electronic oscillator, electronic feedback

ABSTRACT: An approximate method is given for determining some of the statistical characteristics of a system of inertial phase AFC with an arbitrary two-terminal-pair network in the feedback circuit. A stochastic differential equation is given for the operation of the system and it is shown that all the statistical properties of the system are completely described by the multidimensional distribution function for its coordinates. Approximate formulas are derived for the phase difference distribution laws which may be used for determining the steady-state and nonstationary statistical characteristics of inertial systems for phase synchronization of self-excited oscillators. Orig. art. has: 16 formulas.

SUB CODE: 09/ SUBM DATE: 09Apr66/ ORIG REF: 007

hs
Card 1/1

L 02404-67 EWT(d) GD

ACC NR: AT6022339

SOURCE CODE: UR/0000/66/000/000/0013/0018

AUTHOR: Petrishchev, V. I.; Shakhgil'dyan, V. V.; Ignatov, Yu. F.

50

BT/

ORG: None

TITLE: Experimental investigation of the statistical properties of a system for phase automatic frequency control (

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnizu radio. 22d, 1966.
Sektsiya teorii i tekhniki perechachi diskretnykh signalov. Doklady. Moscow, 1966,
13-18

TOPIC TAGS: AFC, filter circuit, low frequency, phase detector

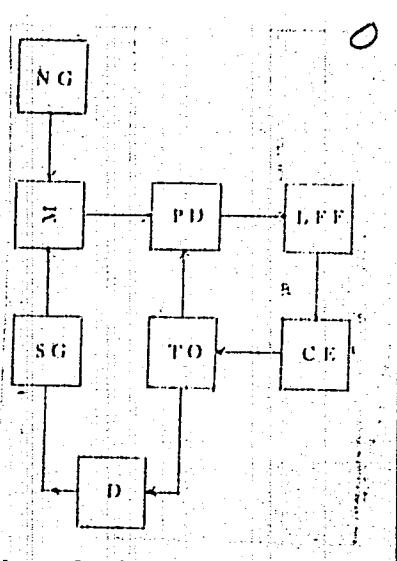
ABSTRACT: The authors describe the experimental equipment and measurement methods used for studying a typical phase AFC circuit (see figure on card 2) consisting of a phase detector (PD), low-frequency filter (LFF), control element (CE) and tuned oscillator (TO). The experimental model was built with semiconductor devices to eliminate the effect of variations in the a-c supply voltage. Oscillator stability was improved by thermostatic control. Harmonic voltage was fed to the PD input from a standard generator (SG) together with normal stationary noise from a special generator (NG). The experiment consisted of determining the average frequency difference between TO and SG, the average time for operation of the system in the synchronous state (the

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L 02404-67

ACC NR: AT6022339

average time between two phase displacements by $\pm 2\pi$), the density distribution for phase difference and the probability for disruption of synchronization. A special device was developed for this purpose (D in the figure). Experimental results are given for two specific low-frequency filters. Analysis of the experimental data shows that a proportionally integrating filter with a large time constant and zero initial mismatch gives an average time to disruption of synchronization which is independent of the time constant and increases with a reduction in the ratio of $R_1 C$ to $(R+R_1)C$. The average time for synchronous operation with a proportionally integrating filter is nearly independent of the initial mismatch up to 0.1Δ where Δ is the frequency band of the system. There is a sharp reduction in the average time to disruption of synchronization when mismatch is increased beyond 0.1Δ . The average frequency difference for the system in this case is practically independent of the relative time constant if the initial mismatch is no greater than the holding band. When the holding band is less than the initial mismatch, the average frequency difference increases sharply with the relative time constant. The average time for synchronous operation also increases with the relative time constant when the initial mismatch is zero. However, as the



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"APPROVED FOR RELEASE: 07/20/2001

CIA-RDP86-00513R001548530003-2

L 02404-67

ACC NR: AT6022339

relative time constant increases, there is an increment in the phase of T0 by $n \cdot 2\pi$ ($n=1, 2, \dots$) with each individual disruption of synchronization, n increasing with the relative time constant. Orig. art. has: 5 figures, 4 formulas.

SUB CODE: 09/ SUBM DATE: 09Apr66

ms
Card 3/3

APPROVED FOR RELEASE: 07/20/2001

CIA-RDP86-00513R001548530003-2"

L U/VIZ-07 EW T(1)

ACC NR: AP7001067

SOURCE CODE: UR/0109/66/011/009/1547/1553

SHAKHGIL'DYAN, V. V.

26

B

"Investigation of the Statistical Properties of a Phase Automatic Frequency Tuning System with a Quadrupole in the Feedback Circuit"

8

Radiotekhnika i Elektronika, No 9, 1966, pp 1547-1553

Abstract: An analysis of the influence of fluctuation noise on the operation of a phase frequency tuning system. The stationary unidimensional probability density of a phase difference between the tuned and standard oscillators of the automatic frequency phase tuning system with an arbitrary linear quadrupole in the feedback circuit is determined. Some statistical characteristics are determined. Results of the approximate analysis are found to correspond fully with precise analysis results. Orig. art. has: 2 figures and 23 formulas.
[JPRS: 38,490]

ORG: none

TOPIC TAGS: automatic frequency control, electronic feedback

SUB CODE: 09 / SUBM DATE: 05May65 / ORIG REF: 008

Card 1/1 *lcph* UDC: 621.396.662.072.6/.7

092400 90

ACC NR: AP6021786

SOURCE CODE: UR/0413/66/000/012/0050/0050

INVENTORS: Lyakhovkin, A. A.; Shakhgil'dan, V. V.

ORG: none

TITLE: Device for filtering sinusoidal signals. Class 21, No. 182770

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 50

TOPIC TAGS: filter circuit, electric filter, phase shift, *electronic circuit*

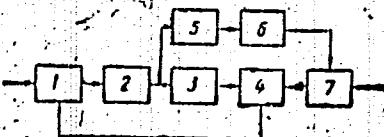
ABSTRACT: This Author Certificate presents a device for filtering sinusoidal signals. It contains a phase detector, a low frequency filter, a controlling unit, and a tunable oscillator. To decrease the phase deviation of the output voltage while maintaining the clamp poles, the phase detector output is connected through a series-connected amplifier and correcting four-terminal network to one of the inputs of a phase modulator (see Fig. 1). The second input of the phase modulator is connected to the output of the tunable oscillator.

Card 1/2

UDC: 621.373.42

ACC NR: AP6021786

Fig. 1. 1 - phase detector; 2 - low frequency filter; 3 - controlling unit; 4 - tunable oscillator; 5 - amplifier; 6 - correcting four-terminal network; 7 - phase modulator



Orig. art. has: 1 diagram.

SUB COIE: 09/ SUBM DATE: 21Jun65

Card 2/2

L 10496-65 EEO-2/EWT(d)/EED-2 ASD(a)-5/AFETB

ACCESSION NR: AP4045470

S/0108/64/019/009/0032/0040

B

AUTHOR: Lyakhovkin, A. A. (Active member); Shakhgildyan, V. V. (Active member)

TITLE: Lock-in band in an inertial system of phase automatic frequency control

SOURCE: Radiotekhnika, v. 19, no. 9, 1964, 32-40

TOPIC TAGS: automatic frequency control, AFC, phase AFC, inertial phase AFC

ABSTRACT: The lock-in band is determined, in analytical form, for the stable im kleinen systems of phase automatic frequency control (PAFC) which have complicated linear quadripoles in their feedback circuits. The general differential equation for a PAFC system is replaced with a first-order equation with slow-varying parameters $|Q = \sqrt{F_1^2 - F_2^2}|$; and the method of harmonic balance is used for determining the functions F_1 and F_2 . These techniques

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L 10496-65
ACCESSION NR: AP4045470

permit reducing high-order differential equations to this algebraic equation for the lock-in band γ_3 :

$$\gamma_3^8 T_{1y}^4 - [(2m - m^2) T_{1y}^4 - 2T_{1y}^2] \gamma_3^4 - (2T_{1y} - 1) \gamma_3^2 - 1 = 0,$$

which can be further reduced to a cubic equation. The above method permits finding the lock-in band even if the analytical formula for the transfer constant of the quadripole is not available. It is claimed that the results obtained from the above approximate method applied to PAFC systems having various feedback quadripoles are in good agreement with published data. Orig. art. has: 4 figures, 35 formulas, and 1 table.

ASSOCIATION: Nauchno-tehnicheskoye obshchestvo radiotekhniki i elektrosvyazi
(Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 10Jan63

ENCL: 00

SUB CODE: EC

NO REF SOV: 008

OTHER: 003

Card 2/2

SHAKHGIL'DYAN, V.V.; IGNATOV, Yu.F.

Determination of the region of synchronous operation of
an automatic phase frequency trim system. Elektrosviaz'
19 no.10:33-37 O '65. (MIRA 18:12)

1. Submitted Nov. 28, 1964.

L 10453-66 EWT(d)

ACC NR: AR5027566

SOURCE CODE: UR/0274/65/000/008/B048/B048

28

SOURCE: Ref. zh. Radiotekhnika i elekrosvyazi, Abs. 6B352

AUTHOR: Shakhgil'dyan, V. V.

TITLE: Accuracy of finding periodic solutions in a phase-type automatic frequency control system 6

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 21, 1964, 65-71

TOPIC TAGS: automatic frequency control, AFC error

TRANSLATION: The accuracy of finding solutions, in a nonlinear phase AFC, by the method of harmonic balance is estimated. A formula for evaluating the error, when an integrating RC-filter is used in the AFC system, is presented. An error curve of an approximate solution suitable for the AFC system with integrating filters is presented; it is suitable for several values of the amplitude and phase deviation of the reference signal.

SUB CODE: 09

Card 1/1 dw

UDC: 621.396.660

Shestopalov, V.V.

Determination of the lock band of an automatic phase frequency control system with a phase modulated reference signal. Radiotekhnika i elektron. 10 no.10:1753-1758. 0 '65. (MIRA 18:10)

SHAKHI-ZADE , M.G.

Technology of oil growth promoting substances. Nefteper. i
neftekhim. no. 11:24-27 '63. (MIRA 17:5)

1. Barkinskiy neftepererabatyvayushchiy zavod im. Karayeva.

SOV/109 - 4-3-35/38

AUTHORS: Vystavkin, A.N., Anisimova, Yu.V., and Shakhidzhakov, S.S.

TITLE: Simulation of the Trajectories of Relativistic Electrons
in a Magnetic Ondulator (Modelirovaniye trayektoriy
relativistskikh elektronov v magnitnom ondulyatore)

PERIODICAL: Radiotekhnika i Elektronika, Vol 4, Nr 3, 1959,
pp 550-551 (USSR)

ABSTRACT: The equation of motion of an electron in a magnetic field
can be written as: \rightarrow

$$\frac{dp}{dt} = e \left[\frac{v^2}{\gamma H} \right], \quad (1)$$

where p , e and v are the impulse, the charge and the
velocity of an electron, while H is the magnetic field.
If the radiation energy of the electron is neglected,
Eq (1) can be written as Eq (2), where m_0 is the rest
mass of an electron, while β is the ratio of the
absolute velocity of the electron to the velocity of light.
Eq (2) can also be written as Eq (3) where ds is an
element of the curvi-linear trajectory of an electron.
The vector of the curvature of the trajectory can be
expressed by Eq (4). For the case of a non-relativistic
electron, Eq (4) is in the form of Eq (5). By comparing

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SOV/109-- 14-3-35/38

Simulation of the Trajectories of Relativistic Electrons in a
Magnetic Ondulator

Eqs (4) and (5), it can be seen that, provided the initial co-ordinates and angles and the magnetic fields are identical, the two equations are also identical; the condition expressed by Eq (6) should also be fulfilled. The above result can be used to simulate the trajectories of relativistic electrons by means of a magnetic ondulator such, for example, as described by H. Motz (Ref 1). The authors also devised an ondulator and this is schematically illustrated in Fig 1. The device consists of: (1) an electron gun, (2) a mechanism for displacing the gun, (3) a bellows, (4) magnetic rails, (5) a drift tube with hermetically sealed windows, (6) a stationary collector electrode, (7) a device for imparting a motion in vacuum and (8) pole-pieces for producing the magnetic field. The authors make

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SOV/109-1-4-3-35/38

Simulation of the Trajectories of Relativistic Electrons in a
Magnetic Ondulator

Acknowledgement to G.A. Bernashevsky for suggesting the
problem and directing the work.

There are 3 figures and 1 English reference.

SUBMITTED: July 12, 1958

Card 3/3

SHAKHIDZHANOV, S.S.

11 июня
(с 18 до 22 часов)

Г. Н. Ремонт

Вибрационное излучение электронных пучков с не-
равномерными траекториями.

С. Г. Афансев

Од управление частотой гиродинового генератора

А. Н. Чечин

Низкочастотные шумы современных электронных
ламп

М. С. Араман

Метод получения низкочастотных звукогенераторов за-
регистрирующих выпуклые фигуры в многократном виде
электронных пучков12 июня
(с 10 до 16 часов)

Е. В. Багаев,

В. В. Кислов,

Э. С. Чирко

Влияние ядерного излучения на электронные пучки

35

Г. В. Лебедев

Генераторный генератор СВЧ излучений.

А. Н. Басовский,

Н. Н. Золотухин,

С. С. Михалевский

Физико-химическое исследование частоты излучения
электронных пучков

А. М. Харченко,

С. В. Балашов,

Н. Н. Григорьев,

А. В. Зорин

Электронные контактные лампы и некоторые их
изделия для промышленности

А. Г. Смирнов

Руководитель Г. В. Бурда

9 июня

(с 10 до 16 часов)

report submitted for the Centennial Meeting of the Scientific Technological Society of

Radio Engineering and Electrical Communications in A. S. Popov (VEKRI), Moscow,

8-12 June, 1959

66712

SOV/109-4-8-33/35

9.1300**AUTHORS:** Vystavkin, A.N. and Shakhidzhanov, S.S.**TITLE:** Excitation of the Waveguide of a Magnetic Ondulator
by an Extended Modulated Electron Beam of Finite Length**PERIODICAL:** Radiotekhnika i elektronika, 1959, Vol 4, Nr 8,
pp 1404 - 1408 (USSR)**ABSTRACT:** The problem of main interest in the analysis of a magnetic ondulator is the excitation of the waveguide by a train of relativistic electron bunches which move along a periodic trajectory of finite length. The problem can be solved approximately if the radiation losses and the reaction of the radiated field on the relativistic electron beam are neglected. Only the first harmonic of the periodic electron trajectory is considered. The current of the electron bunches moving along a sinusoidal trajectory (see Figure a) can be written in the form of Eqs (1) and (2), where \bar{v} is the velocity of the electrons along the axis z , v is the velocity of the electrons along the trajectory and j_ω is the amplitude of the current density at a

X

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SOV/109-4-8-33/35

Excitation of the Waveguide of a Magnetic Ondulator by an Extended
Modulated Electron Beam of Finite Length

frequency ω . The current component $j_{\omega y}$ can be represented by Eq (3), where the quantities γ are defined by Eqs (4). The radiation power for the s-th wave can be determined from Eq (5), where P_s is the power carried by the wave having an electric field component E_s (Ref 10). For a fine beam, Eq (5) can be written as Eq (6), where γ_s is the wave number of the s-th wave and L is the length of the waveguide section occupied by the radiating beam; i is the amplitude of one of the current components. From Eq (6), it is seen that a resonance is attained when:

(7).

$$\gamma_T = \gamma_s$$

Consequently, the resonance frequencies for a uniform waveguide are given by Eqs (8), provided the waveguide is excited by a fast transverse wave of the type given \checkmark

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Excitation of the Waveguide of a Magnetic Ondulator by an Extended
Modulated Electron Beam of Finite Length

by Eq (3). The radiation power in a rectangular waveguide of the ondulator for the H_{10} -wave is given by

Eq (10), provided the beam is concentrated near the axis of the waveguide. On the other hand, the radiation power of the E_{11} -wave is given by Eq (11). From the above

analysis, it is possible to draw the following conclusions:
1) the harmonics of the beam propagating in the waveguide of an ondulator of finite length are radiated when the beam is modulated;

2) it is possible to limit the number of the waves at which the resonance radiation occurs;

3) on the basis of Eq (10), it is possible to evaluate the optimum parameters for the ondulator so that a maximum radiation power will be obtained, and

4) the intensity of the radiation in the ondulator, in the presence of longitudinal currents, can be higher than that in the presence of transverse currents even in the absence of synchronism.

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SOV/109-4-8-33/35

Excitation of the Waveguide of a Magnetic Ondulator by an Extended
Modulated Electron Beam of Finite Length

The authors express their gratitude to N.D. Devyatkov
and G.A. Bernashevskiy for valuable advice and for
directing this work.

There are 1 figure and 13 references, of which 6 are
English, 2 French and 5 Soviet.

SUBMITTED: January 20, 1959

Card 4/4

SHAKHIDZHANOV, S.S.

Phase conditions in systems of accumulation of high currents of
accelerated particles. Atom. energ. 12 no.6:483-487 Je '62.

(MIRA 15:6)

(Particle accelerators)

MAKSIMOV, Yu.I.; SHAKHIDZHANOV, V.S.

Construction control with the aid of electronic computers.
Stroi.truboprov. 10 no.10:23 0 '65.

(MIRA 16:10)

SHADLOVSKIY, Aleksandr Aleksandrovich. Prinimali uchastsiye:
VERNIDUB, I.I., kand. tekhn. nauk; SHAKHIDZHAHOV, Ye.S.,
kand. tekhn. nauk; SMETANA A.V., inzh.; IVANOVA, N.N.,
kand. tekhn. nauk, retsenzent; BIL'DYUKEVICH, M.A., kand.
tekhn. nauk, retsenzent; SUVOROVA, I.A., red.

[Principles of pyrotechnics] Osnovy pirotekhniki. Izd. 3.,
perer. i dop. Moskva, Mashinostroenie, 1964. 338 p.
(MIRA 17:12)

AVVAKUMOV, V.A.; BAKIROV, K.Kh.; DEMCHUK, L.V.; IVANOV, Yu.A.; NEVOLIN,
N.V.; POPYTALOV, D.I.; SHAKHIDZHANOV, Yu.S.; EVENTOV, Ya.S.

New data on the geology of the Aktyubinsk part of the Ural
Mountains region and western Mugodzhar Hills and the outlook
for oil and gas. Sov. geol. 3 no. 11:68-84 N '60.

(MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
neftyanoy institut.

(Aktyubinsk Province--Geology)

SHAKHIDZHANOV, Yu.S.

Geology and prospects for finding oil in the western part of
the Kokpeky anticline. Trudy VNIGNI no.34:114-127 '61.

(MIRA 15:7)

(Mugodzhar Hills region--Petroleum geology)

SHAKHIDZHANOVA, E.S.

Materials on the study of clinical forms of choreic hyperkinesis
in Azerbaijan. Izv. AN Azerb. SSR. Ser. biol. i med. nauk no.10:
149-152 '61. (MIRA 15:1)

(AZERBAIJAN..CHOREA)

SHAKHIDZHANOVA, N.S.

Characteristics of chorea in parturients. Azerb. med. zhur. no. 3:70-
73 Mr '61. (MIRA 14:4)

(CHOREA) (PREGNANCY, COMPLICATIONS OF)

SHAKHIDZHANOVA, E.S.

Clinical aspects of cerebrovascular embolisms. Azerb.med.shur. no.7:
81-84 J1 '58 (MIRA 11:8)

1. Iz kliniki nervnykh bolezney (zav. - prof. A.V. Feyzullayev)
Azerbaydzhanskogo gosudarstvennogo instituta pri klinicheskoy bol'nitse
im. Semashko (glavvrach A.A. Ismaylov).
(BRAIN--BLOOD SUPPLY)
(EMBOLISM)

SHAKHIDZHANOVA, N.S.

Materials on a study of the clinical forms of chorea in adults.
Azerb. med. zhur. no. 10:51-54 O '60. (MIRA 13:10)

1. Iz kafedry nervnykh bolezney (zav. - prof. A.V. Feyzullayev)
Azerbaydzhanskogo gosudarstvennogo meditsinskogo instituta
imeni N. Narimanova. (CHOREA)

SVESHNIKOV, G.N.; GOL'DBERG, G.M., kand.tekhn.nauk; SHAKHIDZHANOVA, V.I.,
starshiy prepodavatel'; SHAFALOVICH, A.F., red.; CHISTYAKOVA,
K.P., tekhn.red.

[Geometrical statics; lecture abstract] Geometricheskaja
statika; konспект lektsii. Sost. G.M. Gol'dberg i V.I. Shakhidzhanova.
Moskva, Mosk.aviatsionnyi in-t im. Sergo Ordzhonikidze, 1959.
(MIRA 14:4)
78 p.

(Statics)

BELIKOV, Yevgeniy Fedorovich, dotsent; VORONIN, Viktor Aleksandrovich, inzh.; GLOTOV, Georgiy Fedorovich, dotsent; ZELENKOV, Yuriy Vladimirovich, inzh.; IVANOV, Leonid Fedorovich, inzh.; KORENBV, Gleb Sergeyevich, inzh. [deceased]; MASLENNIKOV, Anatoliy Stepanovich, inzh.; SIROTKIN, Mikhail Pavlovich, dotsent; ULITIN, Andrey Il'ich, inzh.; URUSOV, Nikita Yur'yevich, inzh.; FLOROVSKIY, Yuriy Sergeyevich, inzh.; SHAKHIDZHANYAN, Grand Aleksandrovich, inzh.; EGLIT, Vitaliy Ivanovich, inzh.; VASIL'YEVA, V.I., red.izd-va; ROMANOVA, V.V., tekhn.red.

[Guidebook on principles of engineering geodesy used in planning and building hydroelectric power stations] Spravochnoe rukovodstvo po inzhenerno-geodezicheskim izyskaniam pri proektirovani i stroytel'stve gidroelektrostantsii. Pod obshchei red. E.F.Belikova. Moskva, Izd-vo geodez.lit-ry, 1960. 447 p. (MIRA 13:11) (Geodesy)
(Hydroelectric power stations) (Geodesy)

SHAKHIDZHANYAN, G.A., inzh.

Making topographical surveys of construction sites and line
studies cheaper. Gidr. stroi. 31 no.7:41-42 J1 '61.

(MIRA 14:7)

(Topographical surveying)

SOV/120-59-1-36/50

AUTHORS: Fleyshman, D. G., Shakhidzhanyan , L. G.

TITLE: Reduction of the Background in Measurements of Small Activities in Liquid Scintillation Counters (Snizheniye fona pri izmereniyakh malykh aktivnostey v zhidkikh stsintillyatsionnykh schetchikakh)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 1, pp 135-136
(USSR)

ABSTRACT: A normal liquid scintillation counter consists of a glass container with a liquid scintillator into which the specimen is introduced in the form of a solution or suspension (Ref 3). The container is in an optical contact with a photomultiplier cathode. In this way the container and the photomultiplier are within the surrounding screen whose purpose is to cut down the background. It is of some interest to find out what is the contribution to the background due to the materials which make up the photomultiplier and the container. A number of workers have pointed out that natural K⁴⁰ in the glass envelope of the photomultiplier does contribute to the background

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SOV/120-59-1-36/50

Reduction of the Background in Measurements of Small Activities in Liquid Scintillation Counters

while in crystal scintillation counters part of the background is also due to K^{40} both in the container and the crystal itself (Ref 5). In the case of liquid scintillators the problem is complicated by the fact that a considerable number of β -particles as well as γ -quanta have sufficient energy to leave the glass container and enter the scintillator where they are recorded. The number of β -particles emitted by K^{40} is greater by a factor of 8 than the number of γ -quanta. Measurements were carried out by placing in the container with a liquid scintillator small pieces of glass of various kinds and measuring the number of pulses in a given interval of time. The counting system consisted of a photomultiplier, an amplifier, a discriminator and a scaling unit. The threshold of the discriminator was 50 Kev. Results obtained show that glasses used in the manufacture of photomultipliers contain a considerable amount of K^{40} . The activities of other materials which are included in photomultipliers were measured. Only mica was found to have a measurable activity. It is suggested that quartz should be used for the containers and the glass Nr 46 (molybdenum) for the photomultiplier. Plexiglass containers have also been found to be very convenient and free of activity.

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SOV/120-59-1-36/50

Reduction of the Background in Measurements of Small Activities in
Liquid Scintillation Counters

A replacement of glass containers by plexiglass containers
reduces the background by a factor of 4-7. There are 2
tables, no figures and 5 references, of which 4 are English
and 1 is Soviet.

ASSOCIATION: Institut evolyutsionnoy fiziologii AN SSSR (Institute
of Evolutionary Physiology of the Academy of Sciences of the
USSR).

SUBMITTED: January 23, 1958.

Card 3/3

21(3)

SOV/89-6-6-13/27

AUTHORS:

Fleyshman, D. G., Shakhidzhanyan, L. G.

TITLE:

A New Scintillating Gel for Measuring the Activity of Suspensions (Novyy stsintilliruyushchiy gel' dlya izmereniya aktivnosti suspenziy)

PERIODICAL:

Atomnaya energiya, 1959, Vol 6, Nr 6, p 669 (USSR)

ABSTRACT:

The present "Letter to the Editor" contains a lecture delivered in February 1958 in Leningrad on the occasion of the All-Union Methodical Congress on the Determination of Small Amounts of Radioactive Substances in Material. The measurement of the activity in samples by means of a liquid scintillator is especially important for biological investigations. In the beginning the application of liquid scintillation counters was restricted in so far as the samples often had to undergo a complicated chemical treatment for the purpose of producing them as compounds which were soluble in the liquid scintillator. In 1955 it had already been suggested to introduce the samples into the scintillator in the form of suspensions and in 1956 was already reported on the application of scintillation gels. Such gels are obtained by adding aluminum stearate to the

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A New Scintillating Gel for Measuring the Activity of
Suspensions SOV/89-6-6-13/27

normal liquid scintillator and by heating the colloidal solution thus obtained up to 70°C. Reference is also made to the use of the preparation "Thixcin". The authors of the present paper developed a new scintillation gel for the investigation of substances containing very small amounts of radioactive materials. Generally plexiglass which at room temperature is only difficultly soluble in toluene was used as gel-forming substance; if, however, plexiglass chips are added to the liquid scintillator (4 g/l p-terphenyl and 0.1 g/l POPOP in toluene), and if the mixture is heated to ~ 100°C a well scintillating gel forms within some minutes. The amount of plexiglass may be widely varied - according to the desired viscosity of the gel, in general 5 - 8 weight % are taken. Such a gel shows high transparency as compared to the natural radiation. In the following the authors describe the introduction of the preparation to be investigated into the gel. The application of the photomultiplier FEU-S and FEU-1BS with low noise level yields satisfactory results. In conclusion, the authors thank V. V. Glazunov for assistance in the measurements, and

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A New Scintillating Gel for Measuring the Activity of Suspensions SOV/89-6-6-13/27

N. S. Khlebnikov for having put at their disposal the photo-multiplier with the low noise level. There are 5 references, 2 of which are Soviet.

SUBMITTED: April 16, 1958

Card 3/3

24(0)

AUTHORS: Shakhidzhanyan, L. G., Fleyshman, D. G., SOV/20-125-1-57/67
Glazunov, V. V., Leont'yev, V. G.,
Nesterov, V. P.

TITLE: Measurement of the Natural Radioactivity in Human Organs
(Izmereniye yestestvennoy radioaktivnosti v organakh cheloveka)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 208-209
(USSR)

ABSTRACT: During the past years the interest in investigating the influence exercised by small doses of ionizing radiation upon living organisms has increased. The radioactivity mentioned in the title is one of the permanently acting factors upon human and animal organism. It is due to several isotopes which are parts of all organs and tissues:

K^{40} , C^{14} , Ra^{226} etc. As a result of nuclear weapon tests the radioactivity in man has somewhat increased. The following fission-products entered his body:

Sr^{90} , Cs^{137} , J^{31} and even more C^{14} from H-bomb explosions. The present paper gives data on the natural radioactivity of the human organs which were obtained by measuring ash. For this

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Measurement of the Natural Radioactivity in Human
Organs

SOV/20-125-1-57/67

purpose served the method of counting suspensions in the scintillating gel (Refs 1, 2). Table 1 gives a small part of the results available of healthy man. At the same time table 1 provides data concerning the β -radiation due to K^{40} . As it can be seen from this the entire β -activity exceeds the activity caused by K^{40} by averagely 20-30%; this percentage sometimes amounts to 70-80%. Measurements of the γ -activity of several organs have shown that the additional radicactivity is on the whole caused by Cs^{137} which penetrates the human organism as a result of nuclear-weapon-tests by the well-known biological courses soil - plant - animal - man. The results obtained give evidence as to the fact that the hitherto produced contamination-activity penetrates all human organs and tissues. There are 2 figures, 1 table, and 2 references.

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I. M. Sechenova Akademii
nauk SSSR (Institute of Evolutionary Physiology imeni
I. M. Sechenov of the Academy of Sciences, USSR)

Card 2/3

Measurement of the Natural Radioactivity in Human
Organs

SOV/20-125-1-57/67

PRESENTED on August 4, 1958, by L. A. Ortelius, Academician

SUBMITTED on August 4, 1958

Card 3/3

SHAKHIDZHANYAN, L. G.

LAVYAEV, G. D.

PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii, Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960.
449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullaev, Candidate of Physics and Mathematics; D. M. Abdurasulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashov; G. S. Ikramova; A. Ye. Kiv; Ye. M. Lobanov, Candidate of Physics and Mathematics; A. I. Nikolayev, Candidate of Medical Sciences; D. Mishanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

Card 1/20

Transactions of the Tashkent (Cont.)

SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

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- Transactions of the Tashkent (Cont.) SOV/5410
Instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION
IN ENGINEERING AND GEOLOGY

Lobanov, Ye. M. [Institut yadernoy fiziki UzSSR - Institute of Nuclear Physics AS UzSSR]. Application of Radioactive Isotopes and Nuclear Radiation in Uzbekistan 7

Taksar, I. M., and V. A. Yanushkovskiy [Institut fiziki AN Latv SSR - Institute of Physics AS Latvian SSR]. Problems of the Typification of Automatic-Control Apparatus Based on the Use of Radioactive Isotopes 9

Card 3/20

Transactions of the Tashkent (Cont.)

SOV/5410

Fleyshman, D. G., V. V. Glazunov, and L. G. Shakhidzhanyan [Institut evolyutsionnoy fiziologii im. T. M. Sechenova AN SSSR - Institute of Evolutionary Physiology imeni T. M. Sechenova AS USSR]. Use of Scintillation Beta-Spectrometry for Determination of Small Quantities of Radioactive Substances in Biological Objects

416

Fernarev, A. N., and V. L. Tal'roze. [Institut khimicheskoy fiziki AN SSSR - Institute of Chemical Physics AS USSR]. Use of the Deuteron-Exchange Method for Studying, Under Simulated Conditions, the Elementary Reactions of Atomic Hydrogen, Occurring in Radiolysis of Solid Hydrocarbons

420

Berezkin, V. G. [Institut neftekhimicheskogo sinteza AN SSSR - Institute of Petrochemical Synthesis AS USSR]. Methods and Equipment for the Chromatographic Investigation of the Products of Radiolysis of Hydrocarbons

425

Slovokhctova, N. A., A. T. Koritskiy, and N. Ya. Euben. [Institute of Chemical Physics AS USSR]. Double Links in Poly-

Carl 19/20

SHAKHIDZHANYAN, L.G.; FLEYSHMAN, D.G.; GLAZUNOV, V.V.; LEONT'YEV, V.G.;
NESTEROV, V.P.

Method of measuring β -activity in biological objects with the
aid of scintillating gel. Med.rad. 5 no.10:72-74 '60. (MIRA 14:2)
(BETA RAYS—MEASUREMENT)

SHAKHIDZHANYAN, L.G.

Degree of contamination and the characteristics of the distribution of radioactive cesium in the body of man and domestic animals under natural conditons. Radiobiologija 2 no.6:838-842 '62. (MIRA 16:11)

1. Institut evolyutsionnoy fiziologii imeni I.M.Sechenova AN SSSR, Leningrad.

SHAKHIDZHANYAN, V. M.

"Increasing the Power Factor in the System Supplying Electric Power to Petroleum Industries." Cand Tech Sci, Leningrad Polytechnic Inst imeni M. I. Kalinin, Min Higher Education, Leningrad, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

KLIMOV, Aleksey Nikolayevich, kand. tekhn. nauk, dots.; OLENEV, Ivan Dmitriyevich, dots.; SOKOLITSYN, Sergey Alekseyevich, dots., kand. tekhn. nauk; TYAMSHANSKIY, N.D., kand. ekonom. nauk, dots.; SHAKHIDZHANYAN, V.M., kand. tekhn. nauk; SABITOV, F.Sh., kand. ekonom. nauk, retsenz.; NEYMARK, A.I., dokt.tekhn.nauk, prof., red.; GRUNKIN, M.N., kand. ekonom.nauk, dots.,red.; RUBCHINSKIY, A.M., kand.ekonom.nauk,dots.,red.; VARKOVETS'KAYA, A.I., red. izd-va; KONTOROVICH, A.I., tekhn. red.

[Organizing and planning the operations of a machinery plant] Organizatsiya i planirovanie mashinostroitel'nogo zavoda. Moskva, Nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 512 p. (MIRA 14:8)

1. Nachal'nik planovo-ekonomiceskogo otdela Leningradskogo metallicheskogo zavoda imeni Stalina (for Sabitov)
(Machinery industry—Management)

"APPROVED FOR RELEASE: 07/20/2001

CIA-RDP86-00513R001548530003-2

GUSEV, V.N., kand.tekhn.nauk; LISOCHKINA, T.V., inzh.; OKORCKOV, V.R.,
kand.tekhn.nauk; SHAKHIDZHANYAN, V.M., kand.tekhn.nauk

Consideration of operating conditions in the design of power
transformers. Elektrotehnika 36 no.12:21-24 D '65.
(MIRA 19:1)

APPROVED FOR RELEASE: 07/20/2001

CIA-RDP86-00513R001548530003-2"

ALEKSANDROV, A.V.; BARMIN, S.F.; MAKSIMOV, Yu.I.; SHAKHIDZHANOV, V.S.

Using electronic computers for the rapid calculation of non-stationary regimes in the operation of gas pipelines. Gaz. prom. 10 no.4:35-39 '65. (MIRA 18:5)

L 59002-65 EEO-2/EWT(d)/EWT(1)/EED-2/EWA(b) Pm-Li/Peb

ACCESSION NR: AR5015994

UR/0058/65/000/005/H005/H005

24
B

SOURCE: Ref. zh. Fizika, Abs. 5Zh33

AUTHOR: Shakhgil'dyan, V. V.

TITLE: Accuracy of determining periodic solutions in a system for automatic phase control of the frequency

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 21, 1964, 65-71

TOPIC TAGS: automatic frequency control, phase frequency control, integrating filter, periodic solution

TRANSLATION: On the basis of the work by Garber (RZhFiz, 1963, 82h21), the author estimates by the harmonic-balance method the accuracy with which the periodic solutions are determined in a nonlinear system for automatic phase control of the frequency. Concrete results are presented for the case when an integrating RC filter is used in the automatic phase control system.

SUB CODE: EC

ENCL: 00

dm
Card 1/1

SHAKHIGIL'DYAN, V.V.

Effect of a phase modulated reference signal and noise on an automatic phase frequency control system. Elektrosvitaz' 19 no.6:19-30 Je '65. (MIRA 18r6)

L 63215-65 EEO-2/EWT(d)/EWT(1)/EEC-4/EED-2/EWA(h)

ACCESSION NR: AP5016075

UR/0108/65/020/006/0028/0034

621.372

AUTHOR: Shakhgil'dyan, V. V. (Active member); Lyakhovkin, A. A. (Active member)

TITLE: Selecting the type of low-frequency filter in the phase AFC circuit which would minimize the frequency dispersion in the oscillator being synchronized

SOURCE: Radiotekhnika, v. 20, no. 6, 1965, 28-34

TOPIC TAGS: phase AFC, phase AFC filter

ABSTRACT: The filtration of a phase AFC system is analyzed with various system and filter parameters and a fixed locking-frequency band. A reference signal and a normal stationary narrow-band additive noise having passed through the linear filter plus limiter are applied to the phase AFC system. The frequency dispersion of the system with these filters is evaluated: (1) An integrating RC-filter, (2) A proportional integrating filter, and (3) An RLC filter.

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L 63215-65

ACCESSION NR: AP5016075

Recommendations are given for application of the above filter types depending on the absolute values of ξ and γ ; $\xi = \frac{\Delta\Omega}{\Delta\omega_y}$ is the ratio of the integral filter band to the locking band; $\gamma = f\left(\frac{B}{\Delta f}\right)$, where B is the reference-signal frequency dispersion. Orig. art. has: 7 figures and 13 formulas.

ASSOCIATION: Nauchno-tehnicheskoye obshchestvo radiotekhniki i elektronosvyazi
(Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 29Jan63

ENCL: 00

SUB CODE: EC

NO REF SOV: 008

OTHER: 003

dm
Card 2/2

SHAKHIL'DYAN, Arkadiy Stepanovich; IVANOV, V.V., red.; SYRTSOVA, S.G.,
red.; MARKOVICH, G.L., tekhn. red.

[Production ties among collective forms in the Moldavian S.S.R.]
Mezhkolkhoznye proizvodstvennye sviazi v Moldavskoi SSR. Kishinev,
Izd-vo "Shtiintsa," 1961. 132 p. (MIRA 15:7)
(Moldavia--Collective farms--Interfarm cooperation)

SHAKHIN, A.N.; BARABANOVA, K.A.

International Consultation Conference of the Member-Countries of
the Council of Mutual Economic Aid. Sakh.prom. 38 no.2:69-72 F '64.
(MIRA 17:3)

STUKALO, I.T., prof.; KULACHKOVSKIY, Yu.V., kand.med.nauk;
SHAKHINIDI, F.Ye.

State of the blood circulation system in patients with tuberculosis of the lungs; from data of instrumental studies. Probl. tub. 38 no.7:70-77 '60. (MIRA 14:1)
(TUBERCULOSIS) (BALLISTOCARDIOGRAPHY) (ELECTROCARDIOGRAPHY)

STUKALO, I.T., prof.; KULACHKOVSKIY, Yu.V.; SHAKHINIDI, G.Ye.

Pulmonary heart syndrome in tuberculosis. Probl.tub. 38
no.8:36-45 '60. (MIRA 14:1)

1. Iz kliniki tuberkuleza (sav. - prof. I.T. Stukalo) L'vov-
skogo meditsinskogo instituta (dir. - prof. L.N. Kuzmenko).
(TUBERCULOSIS) (PULMONARY HEART DISEASE)

STUKALO, I.T., prof.; KULACHKOVSKIY, Yu.V., kand.med.nauk; SHAKHINIDI, G.Ye.

Results of a study of arterial pressure and systolic and minute
blood volume in a group of medical students. Vrach. delo 4:125-126
(MIRA 15:5)

Ap '62.

l. L'vovskiy meditsinskiy institut.
(BLOOD PRESSURE) (BLOOD VOLUME)

STUKALO, I.T., prof.; KULACHKOVSKIY, Yu.V., kand.med.nauk;
SHAKHINIDI, G.Ye.

Norms for the basic elements of electro- and ballistocardiography
of healthy young people residing in the western regions of the
Ukrainian S.S.R. Nauch.trudy L'vov.obl.terap.ob.vra no.1:55-61 '61
(MIRA 16:5)

1. L'vovskaya oblastnaya klinicheskaya bol'nitsa (glavnnyy vrach -
N.I. Besedin).
(ELECTROCARDIOGRAPHY) (BALLISTOCARDIOGRAPHY)
(UKRAINE—CARDIOLOGY—RESEARCH)

SAMOYLOV, A.Ya., prof.; SOKOLOVA, O.N., kand.med.nauk; SHAKHINOVICH, A.R.,
kand.med.nauk

Pupillographic analysis of the normal reaction of the pupil to
light. Vop. neirooft. 2:3-16 '63. (MIRA 16:8)

1. Chlen-korrespondent AMN SSSR (for Samoylov).
(PUPIL (EYE)) (EYE--EXAMINATION)
(MOTION PICTURE PHOTOGRAPHY, MEDICAL)

SHAKHINIAN, A. L.

Shahinian, A. L. On one test of incompleteness of the analytic functions. Acad. Sci. Armenian SSR, Proc. [Doklady] 5, 97-100 (1946). (Russian, Armenian and English summaries)

The author considers a region D topologically equivalent to the region between two circles which are tangent internally. Let D_1 be the class of functions $f(z)$ analytic in D and such that $\iint_D |f(z)|^2 dx dy < \infty$. D^* the subclass satisfying a certain condition restricting their rate of growth in the neighborhood of the point of contact of the curves bounding D . The author gives conditions on the region which prevent D^* from being complete in D . R. P. Boas, Jr.

Source: Mathematical Reviews,

Vol. 8 No. 8.

PA 66T60

SHAKHIV, A. A.

UEER/Geophysics
Climate
Snow

May/Jun 1948

"Physical Processes in Snow Cover," A. A. Shakhev,
Sci Res Aerodrome Sta, 9t pp

"Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII,
No 3

Critically analyzes three theories of the hardening
of snow cover. Pays most attention to the sublima-
tion-thermodynamic theory, which best gives the
characteristics of snow cover. New data confirms
the process of sublimation in snow cover and the
large significance of water vapors. Submitted by
Academician L. S. Leybenzon 27 Jul 1946.

66T60

SHAKHKAMIAN, L.

Heroic weekdays ("Armenian workers during the last 40 years" by
A.K.Grigniants). Reviewed by L.Shakhkamian. Prom.Arm. 4
no.5:79-80 My '61. (MIRA 14:8)
(Armenia--Labor and laboring classes) (Grigniants, A.K.)

SHAKHKAMIAN , L.; YEVANGULOV , A.

Current issue of the collection of scientific and technical publications. Reviewed by L.Shakhamian, A.Evangelov.
From.Arm. 5 no.2:70-72 F '62. (MIRA 15:2)
(Armenia--Technology--Information services)

SHAKHKAMYAN, L.; PETROSYAN, V.

Organization of the consolidation of leather and shoe production.
(MIRA 16:2)
Prom.Arm. 5 no.12:10-14 D '62.

1. Otdeleniye ekonomiceskikh issledovaniy i organizatsii proizvodstva
Soveta marodonogo khozyaystva Armyanskoy SSR.
(Armenia—Industrial organization)

Dependence of the viscosity of esters of linoleic acid on their oxidation. V. G. Georgievskii and B. N. Shakhkeldyan (Moscow Polygraph. Inst.). *Zhur. Priklad. Khim.* (J. Applied Chem.) 24, 603-6 (1951).—*Me linolate*, d_4^{20} 0.8878, and *glycol linolate*, d_4^{20} 0.9182, show no viscosity changes after heating to 100° in N₂. Treatment of the esters with an air stream causes a similar uptake of O and a sharp rise of viscosity of the glycol ester and a somewhat less rapid increase in the Me ester. Bz_2O_2 addn. hastens the oxidation but does not change the nature of the viscosity increase. Increase of the O concn. gives somewhat less viscous products. The viscosity measurements are made by the flow method in the same app. in which the oxidation is done. Results are given graphically. G. M. K.

CA

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Determination of adhesiveness of printing inks. Yu. I. Zolotnitskoi, B. N. Shakhnel'dyan, and E. S. Popkova. *Polygraf. Promstvo* 1951, No. 11, 25-6. -The adhesion tendency is measured by allowing a small roller mounted on a slide attached to a spring balance to contact a wheel whose surface is coated with test material and which is rotated by a standard motor. The pull on the roller at a given velocity of the wheel is translated in terms of adhesive mass of the ink. Graphical curves are presented. G. M. K.

SHAKHKEL'DYAN, B. N.

Dependence of viscosity of linseed oil on its oxidation. II.
V. G. Georgievskii and B. N. Shakkel'dyan (Moscow
Polym. Inst.), *Zhur. Fizikal. Khim. (J. Applied Chem.)*
23, 772-7 (1951); cf. *C.A.* 46, 2483g.—Linseed oil does not
thicken at 100° in absence of O₂. In the presence of Bz₂O₂
the induction period of oxidation vanishes, while plain O₂
always gives a measurable induction period of oxidation and
viscosity increase. Replacement of initially charged O₂
by ordinary air for oxidation after the induction period gives
results indicating that no specific oxidation "catalysts"
are formed during the induction period and the rate of oxidation
in air after pretreatment with O₂ is higher than in air
alone. If at the end of the induction period O₂ is replaced by
N₂, no changes appear in the preliminary step that are cap-
able of increasing viscosity after the removal of O₂, but when
N₂ is replaced by air, a similar rise of viscosity is observed
as was found in ordinary air oxidation. Addn. of Bz₂O₂
does not alter the relation between viscosity and stage of oxidation.
At high levels of oxidation viscosity increase that is
observed is not directly connected with oxidative processes.
Natural linseed oil has the same viscosity-oxidation rela-
tion as was found in synthetic esters of linoleic acid. III.
Ibid. 775-6.—Oxidized linseed oil is analogous to natural
linseed oil in its relation of viscosity to stage of oxidation.
In polymerized oil, as in tung oil, addn. of Bz₂O₂ changes
this dependence by giving more viscous products at the
same stage of oxidation. The results of oxidation studies
are given graphically. G. M. Kosolapoff

Dependence of viscosity of linseed oil on its oxidation. III.
V. G. Georgievskii and E. N. Sosulin (Minsk), *Zhur. Fizikal. Khim. (J. Applied Chem.)* 24, 102-10 (1952); cf. *C.A.* 47, 10232g.

SHAKHEL'DYAN - B.N.

The rheological properties of printing inks. B. N. Shakhel'dyan. *Kolloid. Zhur.*, 18, 111-19 (1950). At velocity gradients between 10^{-4} and 10^{-2} sec.⁻¹ the viscosity η of printing inks was 10^7 to 8×10^7 poises for the inks contg. Phthalocyanine Blue, Lightfast Yellow (I), or Gas Carbon; and 10^4 - 10^5 poises for the inks contg. Chrome Yellow and a white pigment. At velocity gradients of some sec.⁻¹, η was 300-2200 for all inks. The first group showed thixotropy in 10 min.; the 2nd group did not. The η of polymerized linseed oil was raised more by mixing a pigment with it the smaller the η ($= \eta_0$) of the initial oil; e.g., for 10 vol. % of pigment, η/η_0 was 2.8 and 1.2 for η_0 of 0.33 and 37, resp. The yield stress of the ink was greater the greater η_0 . Presumably, particle aggregation was greater in oils of a smaller η_0 . The highest η at very small velocity gradients was greater the smaller η_0 (for I 31, oil 69 vol. %); thus, η was 2×10^4 and 4×10^4 when η_0 was 0.33 and 136, resp.; also the modulus of elasticity was greater the smaller η_0 . The ratio η/m , for a given pigment concn., was greater for oxidized linseed oil or oxidized linseed oil plus an alkyd plastic than for polymerized oil. Addn. of alkyd resin to printing ink prevented clogging of the latter by small amts. of H₂O. J. J. Bikerman

SHAKHKEL'DYAN, B.N. (Moskva)

Viscosity measurements of printing inks at high shearing rates
[with English summary in insert]. Koll.zhur. 18 no.2:242-244
Mr-Ap '56.

(MLRA 9:8)

(Printing ink)

SHAKHKEL'DYAN, B.N., kand.tekhn.nauk, dotsent

Method of estimating the interaction of pigment with the blending
substance. Nauch. trudy MPI no.7/8:197-205 '58. (MIRA 14:12)
(Color printing)

AUTHOR: Shakhkeldyan, R.N.

SOV-69-58-4-16/18

TITLE: The Problem of Stabilization of Carbon Black Suspensions in
Vaseline Oil-Boiled Oil Mixtures (K voprosu o stabilizatsii
sazhevykh suspenziy v maslyanoolifovykh smesyakh)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 498-501 (USSR)

ABSTRACT: Printing dyes are made on the base of film-forming binding substances of polymerized oil and resin or bitumen solutions in mineral oils. The physical-chemical nature of the disperse medium determines the physical-mechanical and printing-technical properties of the dyes due to the different adsorption of surface active substances. In the article, the influence of mixtures of drying oil and mineral oil on the stabilizing ability of binding substances is investigated. In Figure 1 the rheological curve of one of the dyes is given. The greatest possible destruction of the dye structure is attained in these experiments which is shown by the rectilinear part of the curve in the field of high speeds and strains. Extrapolation leads to the beginning of the coordinates which corresponds to the independence of the viscosity from the speed and the applied strain. Figure 2 shows that the relative viscosity corresponding to the completely broken-down structure

Card 1/2

SOV-69-58-4-16/18

The Problem of Stabilization of Carbon Black Suspensions in Vaseline Oil-Boiled Oil Mixtures

is greatest in systems prepared by grinding with pure vaseline oil and decreases gradually on addition of polymerized boiled oil. With a boiled oil content of 30% and higher, the relative viscosity of all systems with equal concentrations of carbon black tends to a constant limiting value at elevated speeds. This is an indication that ultimate adsorption is achieved at this particular concentration of boiled oil. There are 2 graphs, and 5 references, 2 of which are Soviet, 2 English and 1 German.

ASSOCIATION: Moskovskiy poligraficheskiy institut (Moscow Polygraphic Institute)

SUBMITTED: April 8, 1957

1. Carbon black--Stabilization

Card 2/2

SHAKHKEL'DYAN, B.N.

Effect of temperature on the viscosity of polymerized drying
oils. Masl-zhir.prom. 25 no.3:38-40 '59. (MIRA 12:4)

1. Moskovskiy poligraficheskiy institut.
(Drying oils) (Viscosity)

"APPROVED FOR RELEASE: 07/20/2001

CIA-RDP86-00513R001548530003-2

SHAKHKEL'DYAN, B.N.; KALYAVINA, L.F.

Deformation of a paint film in the cupping of tin. Lakokras.mat.1
ikh prim. no.5:45-49 '60. (MIRA 13:11)
(Paint--Testing)

APPROVED FOR RELEASE: 07/20/2001

CIA-RDP86-00513R001548530003-2"

SHAKHKEL'DYAN, B.N.

Effect of drying oil on the stabilization of carbon black suspensions.
Koll.zhur. 22 no.1:106-110 Ja-F '60. (MIRA 13:6)

1. Moskovskiy poligraficheskiy institut.
(Carbon black) (Suspensions (Chemistry)) (Drying oils)

SHAKIKEL'DYAN, B.N.; KALYAVINZ, L.F.; SINEGUB-LAVRENKO, A.A.

Changes in the mechanical properties of printing inks taking place in the process of aging [with summary in English].
Koll. zhur. 23 no.4:491-494 Jl-ig '61. (MIRA 14:8)

1. Nauchno-issledovatel'skiy khimicheskiy institut pro-myshlennosti mestnogo podchineniya, Moskva.
(Printing ink)

SHAKHIDZHAKYAN, L.G.; STARIK, A.S.; FLEYSHMAN, D.G.; GLAZUNOV, V.V.;
LEON'T'EV, V.G.; NESTEROV, V.P.

Distribution of radioactive cesium and strontium in human and
animal organs. Izv. AN SSSR. Ser. biol. no.3:442-448 My-Je '62.
(MIRA 15:6)

1. Institute of Evolutionary Physiology, Academy of Sciences
of the U.S.S.R., Leningrad.
(CESIUM--ISOTOPES) (STRONTIUM--ISOTOPES)
(RADIOISOTOPES--PHYSIOLOGICAL EFFECT)

S/205/62/002/006/006/021
E027/E410

AUTHOR: Shakhidzhanyan, L.G.

TITLE: The level of contamination and features of the distribution of radiocaesium in man and domestic animals in natural conditions

PERIODICAL: Radiobiologiya, v.2, no.6, 1962, 838-842

TEXT: The author has investigated the levels of Cs¹³⁷ in man and animals in the Leningrad area resulting from the explosion of nuclear weapons in 1958 and 1960. The highest levels of contamination with Cs¹³⁷ were found in the second half of 1958. Figures for K⁴⁰ and also the percentage ratio of Cs¹³⁷ to K⁴⁰ for humans (1958), as well as for cows and pigs (1960), are given. Distribution of K⁴⁰ and Cs¹³⁷ in various tissues of man, pigs, cows and sheep was studied. Cs¹³⁷ was never found in the brain although it was present in the other organs examined. It also did not penetrate to the foetus. The existence of a barrier to this isotope is postulated, which is supported by experiments showing that Cs¹³⁷ can penetrate the right half of the brain in dogs sympathectomized on the right side. There are 4 tables.

Card 1/2

The level of contamination ...

S/205/62/002/006/CC6/021
E027, E41G

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I.M.Sechenova
AN SSSR, Leningrad (Institute of Evolutional
Physiology imeni I.M.Sechenov AS USSR, Leningrad)

SUBMITTED: December 11, 1961

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Card 2/2

RADIN, A.Ya., kand. tekhn. nauk; Prinimali uchastiye: ANIKEYEVA, V.P.,
inzh.; SHAKHGEL'DYAN, M.S.

Mechanism of the action of flux in melting aluminum. Trudy MATI
no.56:45-70 '63. (MIRA 16:6)

(Aluminum founding)
(Flux(Metallurgy))

PUBLIC RELEASE UNDER E.O. 13526
CATEGORY : General Problems of Pathology. Inflammation

JOURN. : PES Biol., No. 12 1958, No. 56164

AUTHOR : Shikalov, V.A.

INST. : First Moscow Medical Institute

TITLE : Aseptic Inflammation in the Ovaries of White Rats
Upon Partial Ablation Bilaterally and Chronic Stimulation of the Cerebral Cortex

SRG. PMS. Trudy 1-go Mosk. Med. Inst., 1957, Vol. 2, 200-206

ABSTRACT : Upon partial removal and chronic stimulation of the cerebral cortex, the sequence of basic phases of inflammation in the ovaries of the rat were preserved. Upon bilateral partial removal of the cortex, in the early stages of inflammation the leukocytic reaction and the formation of a leukocytic wall were delayed, and the phagocytic and fibroblastic activity were suppressed. In chronic stimulation there was an increase in the edema of the surrounding tissues, increased vascular permeability, increased leukocytosis; fibrous tissue formation was observed throughout the ovarian stroma.

CARD: 1/1

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R001548530003-2"

SHIKALOV, V.A.

Aseptic inflammation in the ovary of white rats following partial
bilateral removal and long-term stimulation of the cerebral
cortex. Trudy 1-go MM 2:200-206 '57. (MIRA 12:10)
(CEREBRAL CORTEX) (OVARIES--INFLAMMATION)

SHAKHLAGOV, V. A., Cand of Med Sci — (diss) "Morphological and Histochemical Changes in the Foci of Aseptic Inflammations of Testes in Experimental Action on the Core of the Major Hemisphere of the Brain," Moscow, 1959, 14 pp (1st Moscow Medical Institute im I. M. Sechenov) (KL, 2-60, 118)

SVERKHLANOV, V.A. (Moskva, 7-333, 1-y Akademicheskiy perezd, 32, kv.46);
SVERKHLANOV, M.P. (Moskva, Kutuzovskiy pr., 47-B, kv.111)

Glycogen accumulation in neutrophilic leucocytes in the peripheral blood in aseptic inflammation. Arkh. anat. gist. i embr. 41 no.8'94-96 Ag '61. (MIRA 15:6)

1. Kafedra histologii (zav. - prof. V.G. Yeliseyev) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

(INFLAMMATION) (LEUCOCYTES) (GLYCOGEN)

SHAKHLOMOV, V.A.

Mucopolysaccharide content of egg cells. Izv. AN SSSR. Ser.
biol. no.22/1-274 Mr-Ap'62. (MIRA 16:7)

1. The 1st Medical Institute, Moscow.
(OVUM) (POLYSACCHARIDES)

SHAKHLOMOV, V.A. (Moskva)

Succinic dehydrogenase activity of the myocardium in experimental myocarditis in animals with alloxan diabetes. Probl. endok. i gorm. 19 no.1:77-81 Ja-F '64.

(MIRA 17:10)

1. Otdel morfologii (zav. - prof. Ye.I. Tarakanov) Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. - prof. Ye.A. Vasyukova).

ZUBANOV, D.A., SHKINIANI, V.4.

Comparative histological study of the structure of walls of blood and lymph capillaries. Arkh.anat., gizt. 4, no.10:13-18, 6 '64.
(MIRA 18:6)

D.A. Zubanov, V.4. Shkiniani, Institute of functional anatomy (asv. 4. chles-korrespondent AMN SSSR prof. R.A.Zubanov) Institute of morphology chechvensk AMN SSSR, Akademyevska Moskva, X. Martova, 13. Institute of morphology chechvensk AMN SSSR, laboratoriya funktsional'noy anatomii.

KOTOVSKAYA, A.R.; VASIL'YEV, P.V.; LAPIN, B.A.; SIMPURA, S.F.; SHAKHLOMOV, V.;
ARTEM'YEVA, N.S.

Effect of transverse stresses on the organism of female
monkeys. Probl. kosm. biol. 4:322-332 '65. (MIRA 18:9)

DAGAYEVA, L.N.; SHAKHLOMOV, V.A. (Moskva)

Characteristics of the course of experimental myocarditis in rabbits with alloxan diabetes; biochemical, histochemical, and electrocardiographic comparison. Arkh. pat. 27 no. 12: 28-32 '65. (MIRA 18:12)

1. Otdel patofiziologii (zav. - prof. S.M. Leytes) i otdel morfologii (zav. - prof. Ye.I. Tarakanov) Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. - prof. Ye.A. Vasyukova).
Submitted June 25, 1964.

L 14282-66 EWT(1)/FS(v)-3 SCTB DD/RD
ACC NR: AT6003866

SOURCE CODE: UR/2865/65/004/000/0322/0332

AUTHOR: Kotovskaya, A. R.; Vasil'yev, P. V.; Lapin, B. A.; Simpura, S. F.; Shakhlamov, V. A.; Artem'yeva, N. S.

36
③+1

ORG: none

2,44
TITLE: Effect of transverse accelerations on the organism of female monkeys

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 322-332

TOPIC TAGS: cardiovascular system, experiment animal, biologic acceleration effect, biologic respiration, space physiology, histology, biologic reproduction, space biologic experiment

ABSTRACT: Tests were conducted on 16 half-grown monkeys, 5 mandrill and 11 rhesus. Exposure to 12 G centrifugation (varying durations) took place during the following sex cycles: proliferation, secretion, desquamation, and ovulation. Acceleration took place on a centrifuge with an arm radius of 7.25 m in a chest-back position. The behavior of the animals was monitored by TV, and cardiovascular and respiratory activity were used as criteria for the resistance of animals to acceleration. A photograph shows the position of a monkey fixed in the chair of the centrifuge. Table 1 shows the effect of acceleration on cardiovascular and respiratory activity.

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L 14282-66

ACC NR: AT6003866

Table 1. Changes in pulse rate and respiration rate in monkeys exposed to 12 G (mean for 14 animals)

Physiological function	Before	During	After
Pulse rate	152-186	190-230	150-160
Respiration rate	21-36	36-48-54	18-36

The EKG's of animals exposed to acceleration revealed sinus tachycardia, shortened T-P intervals, and ventricular and atrioventricular extrasystole. Cardiac activity in general returned to normal 10-20 min after centrifugation. It was found that the endurance of female monkeys to 12 G ranged from 1 to 4.5 min. A histological analysis of the ovaries of monkeys examined 10 min, 1 hr, 24 hr, and 72 hr after termination of acceleration revealed the following deviations from normal: Proliferation phase: Weakly pronounced depolymerization of acid mucopolysaccharides in the medulla and separate cortical sections of the ovaries, as well as in the uterus. Ovulation: After one, and especially 3 days after the termination of the experiment, all ovarian tissues were found to be full of erythrocytes; The areas around the venules were plasmorrhagic and locally hemorrhagic; Acid mucopolysaccharide depolymerization was intense. Secretory phase: Two monkeys showed premature menstruation and

Card 2/3

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ACC NR: AT6003866

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hemorrhaging in the endometrium when examined 10 min after termination. This was attributed to the deleterious effects of acceleration. Examination of an animal 24 hr later revealed individual small hemorrhages in the cortical ovarian tissue. Some erythrocytes were observed along the vascular walls. Moderate depolymerization of acid mucopolysaccharides was evident.

Desquamative phase. A macro- and microscopic examination of the ovaries, Fallopian tubes, and uterus revealed the same changes as occurred during the proliferation phase.

It was apparent that acceleration had its greatest deleterious effect during ovulation and its minimum effect during proliferation. The observed deviations probably reflected neuroendocrine processes associated with stress reactions to acceleration. The long-term effects of acceleration were not evident one month after acceleration, demonstrating the ability of the ovaries to regenerate after various injuries. Orig. art. has: 5 figures and 2 tables. ATD PRESS: 4091-F

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 006

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Card 3/3